

### REMARKS

The Examiner's final office action provides obviousness rejections of claims 1-5 and 8-20. Applicant hereby responds to the new grounds of rejection in the Examiner's Action that the examiner asserts were necessitated by the last amendment. While not required to respond to the Examiner's action, dependent claims 10, 11, 13 and 14 are herein cancelled so as to reduce the number of issues for any appeal that may be necessary.

### CLAIM REJECTIONS

#### Rejections Under 35 USC § 103

The Examiner had previously rejected claims 1-5, 8-18 under 35 U.S.C. 103(a) as being unpatentable over **Jones et al.** (6,363,164) in view of **Ramachandran** (6,941,274), further in view of **Partyka** (5,941,363), further in view of **Morun** (US 5,566,807), further in view of **Deaville et al** (US 5,791,449) and still further in view of **Katou et al.** (US 2004/0182677 A1). The new rejection adds **Billington** (US 6,390,269) as yet another secondary reference.

The Examiner had also rejected claims 19 and 20 under 35 U.S.C. 103(a) as being unpatentable over **Jones et al.** in view of **Ramachandran**, further in view of **Partyka**, further in view of **Morun**, further in view of **Deaville et al** (US 5,791,449) further in view of **Katou et al.** and still further in view of **Pope** (US 2002/0195309). The new rejection adds **Billington** (US 6,390,269) as another secondary reference to this art pool.

The only new reference is **Billington**, and the only new basis for rejection is the Examiner's discussion of **Billington** found on page 6 of the Examiner's Action ("EA"). All of the remaining sections of the argument presented by the Examiner are copied from the prior rejection. Applicant has previously discussed the remaining prior art in the amendment dated October 13, 2009, incorporated here by reference. Familiarity with that discussion is thus assumed. Applicant also discussed in detail why the art previously applied did not support the Examiner's rejection. In response to that discussion, and even despite the amendments to the claims in the last amendment which are not addressed merely by referencing **Billington**, the Examiner indicates that the prior arguments are moot in view of the application of **Billington**. Applicant respectfully disagrees, and indeed now must assume that those arguments were effective in overcoming the Examiner's prior rejections on the combination of **Jones**,

**Ramachandran, Partyka, Morun, Deaville, Katou et al. and Pope** (but without **Billington**) with respect to the claims as amended in the last Amendment. However, those arguments are also incorporated herein by reference as they have not been substantively addressed or refuted.

**Billington**

The Examiner indicates that **Billington** discloses a program calculating change to be dispensed by a vending machine and outputting a signal indicative of the change to be dispensed with the signal rerouted through a unit controller. The Examiner specifically indicates that **Billington** also discloses the changer with a bill validator and coin dispenser. See EA at 6. **Billington** show these individual components in a box diagram in Fig. 1, which is what the examiner identifies. The Examiner indicates that it would have been obvious to add the interface of **Billington** with change calculation program to **Jones**' device for the purpose of controlling several different currency dispensing devices so as to provide change in a vending transaction system. *Id.*

Again, however, **Jones** describes an ATM type transaction system having a validator including a coin hopper 63 and coin dispenser 62 and means for calculating the total of the coins/currency to be dispensed. **Jones** at 79:1-31. **Jones** is not a vending machine for dispensing products of the type contemplated by the present invention or by **Billington**. Modifying **Jones** as suggested by the Examiner makes no sense as **Jones** contemplates the ability to take in and dispense currency and coins, and the ability to determine what combination is appropriate for a certain amount to be dispensed. Thus, the only reason to add **Billington** to **Jones** is the inherent recognition that **Jones** is not a vending machine of the type addressed in the claims, so it does not have a vending machine controller running a standard program that allows receipt of at most a five dollar bill and the payout of coins as change. In the context of what **Jones** was intended to do, there is no need for the **Billington** device modification, other than to propose an assembly guided by the present application.

Claim 1 as amended by the prior amendment contemplate a method for modifying the operation of a vending machine, the vending machine having a cabinet and design spaces to receive a bill validator. Claim 1 also discusses upgrading the vending machine by installing a bill acceptor-dispenser that includes a processor to take control of the financial transactions allowed for the vending machine. None of the prior art references are comparable to the method of modifying a vending machine described in claim 1. **Jones**, the only primary reference, is not

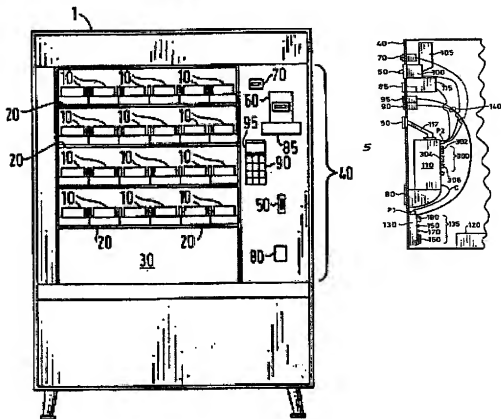
even a vending machine for vending products. The Examiner's action does not meaningfully respond to the distinctions between claim 1 as previously amended and **Jones**.

As discussed previously, **Jones** does not disclose a bill acceptor-dispenser having a program receiving as an input a signal from the validator indicative of the actual denomination of the note received and a signal from the vending machine controller indicative of the amount of change to be dispensed as coins by the coin acceptor/changer, the processor then determining the amount of change to be dispensed as coins and the amount to be dispensed as paper currency and outputting a control signal indicative of the notes to be dispensed by the bill acceptor-dispenser which controls the disbursement of currency and a signal to the coin acceptor/changer indicative of the amount of coins to be dispensed for the completion of a vending transaction as required by claims 1, 18 and 19. As **Jones** is not directed to a vending machine, **Jones** does not disclose that the processor communicating with the vending machine controller provides a signal indicative of a five dollar note to the vending machine controller upon receipt of a note having a denomination greater than five dollars as required by claim 1. Similarly, **Jones** does not disclose a Control Program controlling the validation, acceptance and recognition of second value notes up to a second value exceeding said first value and for controlling the denominations of notes to be accepted by said bill acceptor-dispenser based upon the availability of notes held in a dispensable fashion and receiving as an input a signal indicative of the actual denomination of the note received and a signal from said vending machine controller indicative of the amount of change to be dispensed as coins by said coin acceptor/changer, the Control Program then determining the amount of change to be dispensed as coins and the amount to be dispensed as paper currency and outputting a control signal indicative of the notes to be dispensed by the bill acceptor-dispenser which controls the disbursement of currency and a signal to the coin acceptor/changer indicative of the amount of coins to be dispensed by the vending machine for the completion of a vending transaction as generally required by claims 20.

**Jones** doesn't have these components because the device of **Jones** is not designed to be a vending machine nor is it designed to be used with a vending machine. By comparison, and more significant to the present application, **Billington** contemplates modification of a common vending machine 1 depicted in Fig. 4, with various money handling components being incorporated into the space identified by bracket 40 at the right edge of the vending machine 1. The money changing components and control systems of **Billington** are illustrated in a side view

of 5, illustrating the relatively thin depth of the space allocated to these components in a vending machine. These figures are reproduced and resized for perspective below. It is submitted that by comparison with the vending machine of **Billington** depicted in Fig. 4 below, the ATM device of **Jones** (e.g. Fig. 1(b)) may be almost the same width and depth, though perhaps not as tall, as a common vending machine. The assembly of **Jones** was clearly not intended to fit into the allowed space for the money handling components of **Billington**.

FIG. 4



At its heart, the Examiner's combination contemplates ATM systems of **Jones**' full image processing ATM device with **Ramachandrans** or **Katou's** ATM and **Partyka's** monitoring system, the vending system of **Moran**, the bezel of **Deaville** and **Pope's** coin mechanism, somehow combined, now with **Billington's** interface, and in effect that it would be obvious to combine all of those components into the space not designated for product inside the vending machine 1 shown in Figs. 4 and 5 from **Billington**. The Examiner does not even begin

to explain the problems a skilled engineer would face with his proposed combination. How are those components supposed to fit? If I put all of those in a vending machine will there be room for products? What benefit would there be of a vending machine that could be an ATM, which could make change but it would only store enough product for a few sales?

The foregoing illustrates the problem of the Examiner's selecting multiple prior references to try and identify all of the different components specifically defined in the application without actually considering if there is any basis to arrange the components as set forth in the claims **other than** based upon the "assembly instructions" of the applicants claims. In order to render a claimed apparatus obvious, the cited prior art as a whole must enable one skilled in the art to make and use the apparatus or method. *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989). The various components selected by the Examiner from the references were simply never intended to be modified, squashed, crammed together and reassembled to fit into a limited space inside a vending machine in a manner by which those skilled in the art could have been able to make and use the Examiner's proposed device.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). The Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) (stating that 35 U.S.C. § 103 leads to three basic factual inquiries: the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the art). "[T]he examiner bears the initial burden, on review of the prior art or on any ground, of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). In this case, the proposed combination selectively ignores the differences between what the prior art references actually intend and what is being claimed. There is no way to reconcile the Examiner's proposed combination of no less than seven separate references requiring further augmentation as "obvious to combine ATM and vending machines to dispense snacks and allow ATM transactions" and obvious to replace a control system for a device with another control system designed for a different device. The only logic behind the compound rejection is because that is what would be needed to have an arrangement catching all limitations of the claims. The Examiner "cannot use

hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d at 1075.

The Examiner's proposed combinations are improper and misplaced in view of the underlying concept of the application, directed to an improvement or modification to vending machines. As against the claimed invention, the Examiner has maintained and continues to maintain that patents for Automated Transaction Machines, commonly known as ATM's, such as the **Jones** (for an Automated Document Processing System) and **Ramachandran**, (entitled "Automated Transaction Machine") are effectively machines that vend money thus they are like the vending machines of the claims and that they may be modified by selecting specific concepts from various secondary references to compile a device according to the claimed invention.

Independent claim 1, as well as the independent claims 18, 19 and 20, were previously amended to provided that the vending machine controller to control the operation of the vending machine based on a standardized vending machine protocol program is limited in that the protocol program allows the vending machine to receive at most a five dollar denomination bill and provide coins as change to complete any vending transaction, not bills as change. In addition, claim 1 provides that the processor of the bill acceptor-dispenser has a program receiving as an input a signal from said validator indicative of the actual denomination of the note received and a signal from the vending machine controller indicative of the amount of change to be dispensed as coins by said coin acceptor/changer, the processor determines the amount of change to be dispensed as coins and the amount to be dispensed as paper currency and outputs a control signal indicative of the notes to be dispensed by the bill acceptor-dispenser which controls the disbursement of currency and a signal to the coin acceptor/changer indicative of the amount of coins to be dispensed for the completion of a vending transaction. A generally similar limitation has been included in the other independent claims 18 and 19. Claim 1 also provides that the processor communicating with the vending machine controller provides a signal indicative of a five dollar note to the vending machine controller upon receipt of a note having a denomination greater than five dollars.

An obviousness determination requires that a skilled artisan would have perceived a reasonable expectation of success in making the invention in light of the prior art. *See In re Kubin*, 561 F.3d 1351, 1360 (Fed. Cir. 2009) ("[S]tated in the familiar terms of this court's longstanding case law, the record shows that a skilled artisan would have had a resoundingly

'reasonable expectation of success' in deriving the claimed invention in light of the teachings of the prior art."); *In re O'Farrell*, 853 F.2d 894, 904 (Fed. Cir. 1988) ("For obviousness under § 103, all that is required is a reasonable expectation of success."). "[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 127 S.Ct. 1727, 167 L.Ed.2d 705 (2007). A prior art reference in effect teaches away from those modifications that would render it inoperable for its intended purpose, thereby making it improper to base an obviousness rejection on proposed modification that would render the prior art invention being modified unsatisfactory for its intended purpose. *See In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984).

Notwithstanding, it is respectfully submitted that **Billington** may be the most pertinent prior art reference of those relied upon by the Examiner. **Billington** illustrates a proposed alternative design to what is contemplated by the claims of the present application. **Billington** addresses the problem of a vending machine needing to accept different denominations of bills in the context of devices that would be modified to accept new currencies, specifically Euros, the values of which may not be recognized by standardized VMC's of vending machines. **Billington's** solution was a separate processor and interface board, and the addition of a bill dispensing device to be coupled with a standard bill acceptor. *See Billington* at 9:20-29.

By comparison, the present invention solves the problem with a new design integrating a bill acceptor-dispenser with a controller including a program to communicate with the VMC of the vending machine so as to assume control over the currency acceptance, vending transaction and change dispense function in a manner never contemplated by the original vending machine and its programmed VMC. In context, **Billington** is the obvious design solution to the problem, take off the shelf components, add an external device to communicate with all of the separate components and add a new system controller. As between **Billington's** solution and the solution of the present application, the solution of the present invention as claimed is the novel, non-obvious solution while **Billington** is the obvious (despite being patented) solution to the stated problem. The Examiner has not provided any analysis of an obviousness rejection based on **Billington** as a primary reference. Given its actual teaching, there is no reference identified by the Examiner that would in any way realistically be combinable into **Billington** without the benefit of the current application as the template for its modification.

Accordingly, it is submitted that the claims of the present invention are not obvious as asserted by the Examiner in the final Examiner's Action (or the prior Examiner's Action). Reconsideration and allowance of the claims as set forth herein is thus respectfully requested.

The foregoing comments address each of the independent claims 1, 18, 19 and 20. The remaining dependent claims ultimately depend from independent claim 1. As Claim 1 is believed to be allowable, each of the remaining dependent claims is also believed to be allowable.

Accordingly, applicants respectfully request that the rejections be reconsidered and that the claims, as amended, be allowed.

Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 07-1896.

Respectfully submitted,

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